

available spectrum to the detriment of applicants and members of the public with genuine communications needs, but also because the Commission is required to expend considerable resources to processing each application filed, the cost of which is ultimately endured by the public in the form of slower introduction of service.⁴⁴ By requiring stringent financial criteria which force players to "put their money where their mouth is," and by requiring licensees to meet strict construction deadlines, the Commission may be able to approximate auctions by bringing the serious applicants to the table and thus assuage the idiocy that typifies the current lottery process.

Specifically, PageNet proposes that, in order to ensure that the entities selected for licensing will actually construct and operate advanced paging systems, each applicant be required to demonstrate that it has sufficient financial resources to construct the system proposed in its application. Each applicant should, therefore, be required to file with its application an itemized estimate of the cost of constructing seventy-five percent of its system during the first three years of its license. Applicants relying on internal financing should be required to submit independently audited financial statements certified within one year of the date of the application, and an independently audited balance sheet dated no more than 60 days before the date of the

⁴⁴ The allocation of unduly limited bandwidths would produce a similar result. See supra at 15 n.31.

application. Applicants proposing to rely on outside financing should be required to submit a statement from the lender indicating that the lender has examined the financial condition of the applicant including an audited financial statement and has determined that it will provide the applicant with capital sufficient to build the system.

Further, PageNet proposes that the Commission implement construction deadlines which trigger the reversion of a license back to the pool where such deadlines are not timely met. For example, PageNet proposes that nationwide licensees be required to construct stations in a minimum of 75 percent of the markets designated in the application within three years.

As a critical component of its proposed licensing scheme, PageNet submits that rules should be devised to permit the rapid transfer of licenses. While PageNet's proposed licensing scheme attempts to curtail speculation and bring serious applicants to the table in the first instance, PageNet also believes that the Commission must allow the market to work once licenses are in the hands of those applicants. For instance, if the Commission were to allocate less than 250 kHz blocks of spectrum to all advanced paging applicants, carriers such as PageNet and PageMart would have to aggregate spectrum in order to provide their valuable services. Placing conditions on transferability would thus inhibit or preclude the rapid provision of those services to

the public.⁴⁵ Thus, PageNet submits that there should be no conditions on transferability in order to allow the "private auction" to take place in the second instance as well as the first.

D. The Commission Should Not Allocate the Spectrum Reserved for Advanced Paging to Other Uses

Several parties not previously participating in this proceeding request that the Commission allocate part of the spectrum reserved for advanced paging services to other uses. For instance, Grand Broadcasting Corporation requests that the Commission allocate 1 MHz for two service providers, or 500 kHz for one service provider, from the 901-902, 930-931 or 940-941 MHz band for its proposed Interactive Broadcast Radio Service.⁴⁶ Corporation Technology Partners urges the Commission to provide room for control channels in the 930-931 and 940-941 MHz frequencies for its Personal Communications Integrator ("PCI"), which allows CT2 Plus to share frequency with fixed microwave transmission.⁴⁷ In-Flight Phone Corporation asks for an allocation of 500 kHz in the 901 and 940 MHz bands to provide a live audio news,

⁴⁵ Any condition which would preclude assignment of AMS systems until after they are fully constructed would disserve the public interest. Given the diversity to AMS services proposed and the different infrastructures and terminals involved, the probability that any constructed system would have to be completely dismantled is great.

⁴⁶ See Comments of Grand Broadcasting.

⁴⁷ See Comments of Corporation Technology Partners.

information and entertainment service to customers in transit on airplanes.⁴⁸

Clearly, the Commission has earmarked this spectrum for advanced paging services.⁴⁹ As Commissioner Marshall recognized and PacTel reiterates in its Comments, this "narrowband PCS allocation represents the future of today's paging industry."⁵⁰ In fact, PageNet submits that the 3 MHz of spectrum allocated to narrowband paging services will not satisfy consumer demand. A diversity of advanced paging services have been proposed for this spectrum, each of which satisfies a different need. The demand for, and the growth of the extended paging market, including these services, is not a trend of the future, but a current happening, and exponential demand will continue in the coming decade and beyond. Thus, this spectrum should not be allocated for any other use.

In determining whether frequency should be allocated for a particular service, the Commission must consider that

⁴⁸ See Comments of In-Flight Phone Corporation.

⁴⁹ See NPRM and Tentative Decision at 5696-97; see also Amendment of Parts 2 and 33 of the Commission's Rules to Allocate Spectrum in the 928-931 MHz Band and to Establish Other Rules, Policies and Procedures for One-Way Paging Stations in the Domestic Public Land Radio Service, 89 FCC 2d 1337 (1982); One-Way Signaling in the 900 MHz Band, Docket 80-183, FCC 80-231, Notice of Proposed Rulemaking released May 8, 1980, 45 Fed. Reg. 32013 at 18.

⁵⁰ Comments of PacTel at 9-10 (quoting The PCS Experience -- "A Little Touch of Harry in the Night" released September 25, 1992).

such an allocation results in the withdrawal of frequencies from the general pool open to other potential users or services. As such, the Commission must carefully weigh more than the consequences of a specific proposal, including whether the proposed service will increase spectrum efficiency, add functionality and reduce costs. In other words, before the Commission agrees to award limited and valuable spectrum, whether through a pioneer's preference or a spectrum allocation, it must look at a continuum and determine exactly how the proposal serves the public. If there is no need or demand at the cost proposed, its innovativeness serves no purpose and if offers the public no benefit. The record in this proceeding amply demonstrates that this spectrum has long been earmarked for the provision of advanced messaging services and that overwhelming demand exists for such services.⁵¹

None of the applicants seeking an allocation of the spectrum designated for advanced paging services for other uses has adequately demonstrated a demand for its service which justifies removing valuable spectrum from the AMS pool, nor has any indicated that no other spectrum exists which would accommodate its service. Therefore, PageNet submits that the 901-902, 930-931, and 940-941 MHz frequencies should, as the Commission has proposed, be allocated to advanced paging services.

⁵¹ See, e.g., Comments of Motorola at 21; Comments of PacTel at 9-10.

E. Regulatory Status

Several commenters in this proceeding offer record support for PageNet's position that advanced paging licensees should be permitted the flexibility to choose between private carrier or common carrier regulation. MTel, Metrocall, Telocator, and the National Association of Business and Educational Radio, Inc. ("NABER") agree that the Commission should adopt a flexible service concept, where AMS operators are permitted to offer both common carrier and non-common carrier services over their assigned frequencies.⁵² As MTel points out:

narrowband PCS encompasses a broad range of potential services and the regulatory status appropriate for one of these services may be wholly inappropriate for another. Many offerings, for example, have the ability to be individually tailored to offer features uniquely desired by a single customer, and thus would be offered as private carriage. At the same time, however, some advanced messaging service providers may desire to offer services as common carriers, either because they wish to resell interconnected telephone service or because they wish to offer messaging services⁵³ under state tariffing arrangements.

Several commenters, including PacTel and Arch, propose that AMS be labeled common carriage but suggest that the Commission preempt state regulation as it did with nationwide

⁵² See Comments of MTel at 5-6; Comments of Metrocall at 19-21; Comments of Telocator at 15; Comments of NABER at 3-5.

⁵³ Comments of MTel at 6.

paging.⁵⁴ PageNet believes that the ultimate goal of removing advanced paging services from unnecessary regulation is appropriate. However, PageNet submits that the Commission may face considerable unnecessary hurdles in preempting state common carrier regulation of these services. While, as PacTel suggests, broad geographic regions would, in effect, "create a service which is inherently interstate in nature,"⁵⁵ states will argue that there are intrastate applications of these services which would make federal preemption inherently suspect. The Commission simply does not need to exercise its preemptive powers in order to license these services if advanced paging licensees are permitted the flexibility to choose between private carrier or common carrier regulation.

F. Interconnection

The comments provide overwhelming support for the need to ensure that carriers are entitled to obtain a type of interconnection that is reasonable for a particular advanced paging system and no less favorable than that offered by a local exchange carrier ("LEC") to any other customer or carrier.⁵⁶ The federally protected right to interconnection

⁵⁴ Comments of PacTel at 58; Comments of Arch at 13.

⁵⁵ Comments of PacTel at 54.

⁵⁶ See, e.g., Comments of NABER at 5, Comments of Freeman at ¶ 12, Comments of Telocator at 16; Comments of Metrocall at 19.

with the public switched telephone network enables traditional paging providers to achieve "co-carrier" status, creating stability in customer relations, and facilitating business planning. The Commission's reasonable interconnection standards have been essential to the development of paging as a competitive telecommunications industry, and their applicability should be extended to advanced paging services.

PageNet wishes to reiterate here that in order to further promote competition, interconnection rights should not differ depending on whether an advanced paging service provider is classified as a common carrier or a private carrier. In terms of paging, private and common carriers subscribe to identical services and thus warrant similar treatment. Except for the particular frequencies on which they operate, private carriers provide the same mobile services, albeit to a more narrow customer base given the current prohibition on serving individuals, in exactly the same way and with the same equipment, as radio common carriers.

PCPs face the same hurdles as do RCCs in obtaining access to bottleneck facilities. They have no leverage; they are often competitors to the LEC's own paging operations, and they have no alternatives to the use of LEC access facilities. However, while private carriers must obtain the same or functionally equivalent facilities for interconnection as RCCs, there remain in some cases

significant differences in the cost of facilities available to each. The fact that a radio common carrier gets a cheaper interconnection rate puts the private carrier at a competitive disadvantage because the private carriers' costs to provide an identical service are necessarily higher than those of RCCs.

These differences in interconnection rates charged to PCPs and RCCs constitute unreasonable discrimination under Section 202(a) of the Communications Act, 47 U.S.C. § 202(a), as well as under specific state statutes and regulations. Advanced paging service providers operating as private carriers should, therefore, be treated the same as RCCs for purposes of the rates, terms, and conditions under which they are permitted to interconnect.

II. THE RECORD AMPLY DEMONSTRATES THAT THE COMMISSION FAILED TO APPLY ITS ESTABLISHED PIONEER'S PREFERENCE CRITERIA APPROPRIATELY

In its opening comments in this proceeding, PageNet asserted that the Commission, in making its decision regarding the requests for pioneer's preferences filed in this proceeding, failed to apply its established criteria.⁵⁷ Moreover, PageNet amply demonstrated that its proposed VoiceNow service satisfies the same standard for innovation as the service proposed by Mobile Telecommunications Technologies Corporation ("MTel"). Finally, PageNet argued

⁵⁷ See Comments of PageNet at 33-36.

that the Commission's tentative award of a pioneer's preference violated the Administrative Procedure Act ("APA") because the Commission granted a preference to MTel and denied PageNet's petition for such a preference without conducting the requisite comparative evaluation.

Many of the comments in this proceeding lend further support to the infirmity of the Commission's Tentative Decision.⁵⁸ For example, BellSouth Corporation ("BellSouth") recognizes that, based on the Tentative Decision, "there do not appear to be any standards for the award of pioneer's preferences."⁵⁹ PageNet agrees that, in its Tentative Decision, the Commission "effectively rewrote the rule, thereby ensuring that the Tentative Decision on the various preference requests was not even based on the general criteria set forth in the rule."⁶⁰ As BellSouth points out, "[t]his is hardly reasoned decisionmaking."⁶¹

Further, many of the commenters who filed pioneer's preference requests in this proceeding maintain that a tentative decision to award MTel's request, while denying their own, if carried to a final decision, constitutes

⁵⁸ See, e.g., Comments of Arch at 15-16, Comments of PageMart on Tentative Pioneer's Preference Decisions at 4-5; Comments of BellSouth at 1-4.

⁵⁹ Comments of BellSouth at 1.

⁶⁰ Id. at 9.

⁶¹ Id. at 10.

unreasoned decisionmaking on the Commission's part.⁶²
PageNet made such an argument in its opening Comments
regarding its innovative VoiceNow service.⁶³ BellSouth
concurs, stating:

Against this decisional standard, the tentative award to MTel cannot stand. MTel has proposed a service that is functionally equivalent to the mobile data service that is provided today by a variety of providers. Its multitone modulation technique is many years old, and was developed by others. Its use of "adaptive zoning" is merely a variant on the technique used for registration of cellular units. The Contention Priority Oriented Demand Assignment ("CPODA") protocol it proposes to use for scheduling reverse transmissions is not new -- it is used in pager satellite service -- and MTel does not claim to be the inventor of this protocol.⁶⁴

Based on the record in this proceeding, it becomes more and more apparent that the Commission incorrectly concluded that PageNet's VoiceNow was not innovative because it relied on frequency reuse, a spectrally efficient frequency utilization scheme used in cellular but never before applied to paging services. Moreover, as PageNet and other commenters in this proceeding have demonstrated, the Commission's conclusions in several regards are inconsistent with its grant of a pioneer's preference to MTel, as the

⁶² See, e.g., Comments of PageNet at 46-49; Comments of PageMart at 18-20.

⁶³ PageNet Comments at 46-49.

⁶⁴ Comments of BellSouth at 17.

multicarrier modulation for which it granted MTel a preference has been known for years.⁶⁵

In its comments in this proceeding, MTel attempts to bolster its case for a pioneer's preference by providing demand assessments for its nationwide NWN service. MTel provides the first phase of a study conducted by A.D. Little. According to MTel, the consumer study indicates that "within 5 years, demand for NWN service would be at 1,047,000 units if coverage extended to the top-100 MSAs, and 1,260,000 units if the coverage was extended to 300 MSAs."⁶⁶

Although, as stated above, the Commission's criteria for granting a pioneer's preference, as a result of the Tentative Decision, are unclear, the Commission's Pioneer's Preference Order indicated that demand for a particular service would enter into the Commission's decisionmaking process.⁶⁷ PageNet wishes to emphasize, therefore, as it did in its Pioneer's Preference Request, that as a result of the capacity limitations resolved by its VoiceNow service, the number of voice pagers is projected to increase from less than 2.5 million nationwide in 1990 to in excess of 18 million nationwide by the year 2000.⁶⁸ PageNet's own

⁶⁵ See Comments of PageNet at 45; Comments of BellSouth at 17.

⁶⁶ Comments of MTel at 13-14.

⁶⁷ See Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488 (1991).

⁶⁸ See Preference Request at 12.

experience would indicate that these estimates may be conservative.

A comparative analysis based on the Commission's established criteria reveals that PageNet is clearly deserving of a pioneer's preference. By tentatively concluding that VoiceNow is not within the class of innovations for which a preference can be granted, the Commission has, de facto, both changed and inconsistently applied the rules governing the issuance of a pioneer's preference.

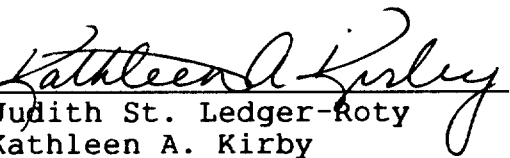
CONCLUSION

The Commission must carefully weigh its options in establishing a regulatory scheme which will allow for the future growth and deployment of advanced paging services throughout the country. Specifically, the Commission should take actions that will satisfy market demand. The record in this proceeding amply demonstrates that the Commission must adopt nationwide and large regional licensing for narrowband advanced paging systems, a flexible channelization scheme which accommodates multiple bandwidths, and a licensing mechanism that approximates auctions. This type of regulatory scheme will further the development of advanced paging services in response to market demand. Moreover,

PageNet should be granted a pioneer's preference for its innovative VoiceNow service.

Respectfully submitted,

PAGING NETWORK, INC.

By: 
Judith St. Ledger-Roty
Kathleen A. Kirby

REED SMITH SHAW & McCLAY
1200 18th Street, N.W.
Washington, D.C. 20036

(202) 457-8656

Its Attorneys

Dated: January 8, 1993

CERTIFICATE OF SERVICE

This is to certify that I, Laverne Watkins, have this day served a true and correct copy of the foregoing document by depositing same in the United States Mail, first-class, postage prepaid, upon the persons on the attached Service List.

This 8th day of January, 1993.


Laverne Watkins

Robert F. Aldrich
Counsel for N. Amer. Telecom. Assn.
Keck, Mahin & Cate
1201 New York Avenue, N.W.
Penthouse Suite
Washington, DC 20005

Michael F. Altschul
Counsel for Cellular Telecom.
Industry Association
Willkie Farr & Gallagher
1155 21st Street, N.W., Suite 600
Washington, DC 20036-3384

Ellen Averett
Assistant Counsel
Pennsylvania Public Utility Commiss.
P.O. Box 3265
G-28 North Office Building
Harrisburg, PA 17105-3265

Daryl Avery
General Counsel
Public Service Commission of D.C.
450 Fifth Street, NW
Washington, DC 20001

Rodney Bacon
President
Password, Inc.
1303 W. First Avenue
Spokane, WA 99204

C. E. Baker
President
Arch Communications Group, Inc.
1800 West Park Drive
Suite 250
Westborough, MA 01581

William B. Barfield
Counsel for BellSouth Corporation
1155 Peachtree Street, N.W.
Suite 1800
Atlanta, GA 30367

William D. Baskett, III
Counsel for Cincinnati Bell
Telephone Company
Frost & Jacobs
2500 Central Trust Cnt 210 E 5th St.
Cincinnati, OH 45202

Henry L. Bauman
Executive Vice President
National Association of Broadcasters
1771 N Street, N.W.
Washington, DC 20036

Raymond Bender
Counsel for Vanguard Cellular
Systems, Inc.
Dow, Lohnes & Albertson
1255 23rd Street, N.W., Ste. 500
Washington, DC 20037

Francine J. Berry
Counsel for American Telephone &
Telegraph Company
295 North Maple Avenue
Room 3244J1
Basking Ridge, NJ 07920

Jay L. Birnbaum
Counsel to Cellular Communications,
Inc.
Skadden, Arps, Slate, Meagher & Flom
1440 New York Avenue, N.W.
Washington, DC 20005

Wayne V. Black
Counsel to American Petroleum Instit.
Keller and Heckman
1001 G Street, N.W., Suite 500 West
Washington, DC 20001

Jeffrey Blumenfeld
Counsel for PageMart, Inc.
Blumenfeld & Cohen
1615 M Street, N.W. Suite 700
Washington, DC 20036

M. John Bowen
Counsel to S. Carolina Telephone Assn
McNair Law Firm, P.A.
1155 Fifteenth Street, NW
Washington, DC 20005

George Brennan
Counsel for NYNEX Corporation
120 Bloomingdale Road
White Plains, NY 10605

Deborah R. Broughton
Counsel for dbX Corporation
Dow, Lohnes & Albertson
1255 23rd Street, N.W. Suite 500
Washington, DC 20037

Margaret Brown
Counsel for Pacific Telesis Group
130 Kearny Street
Room 3659
San Francisco, CA 94108

Peter A. Casciato
Counsel for Cellular Service, Inc.
A Professional Corporation
1500 Sansome Street, Suite 201
San Francisco, CA 94111

Brice L. Clark
Program Manager
Mobile Communications
Hewlett-Packard Company
8000 Foothills Blvd.
Roseville, CA 95678

Jeffrey L. Clarke
Counsel, Office of Government
American Gas Association
1515 Wilson Boulevard
Arlington, VA 22209

Kevin R. Compton
Counsel to Kleiner Perkins Caufield
& Byers
2200 Geng Road., Suite 205
Palo Alto, CA 94303

David Cosson
Counsel for National Telephone
Cooperative Association
2626 Pennsylvania Avenue, N.W.
Washington, DC 20037

William J. Cowan
General Counsel
Public Service Commission
Three Empire State Plaza
Albany, NY 12223

Ellen S. Deutsch
Senior Counsel
Citizens Utilities Company of CA.
P.O. Box 496020
1035 Placer Street
Redding, CA 96049-6020

Richard Ekstrand
President
Rural Cellular Corporation
P.O. Box 1027
Alexandria, MN 56308

Stuart F. Feldstein
Counsel for Adelphia Comm. Corp.
NewChannels Corporation
Fleischman and Walsh
1400 Sixteenth Street, N.W.
Washington, DC 20036

Charles D. Ferris
Counsel for Cablevision Systems Corp.
Mintz, Levin, Cohn, Ferris, Glovsky
& Popeo, P.C.
701 Penn. Avenue, N.W. Suite 900
Washington, DC 20004

John S. Fischer
General Counsel
LCC Incorporated, Inc.
2300 Clarendon Boulevard, Suite 800
Arlington, VA 22201

Luin Fitch
Communications and Finance Section
U.S. Department of Justice
Judiciary Center Building--Room 8104
555 Fourth Street, NW
Washington, DC 20001

Robert S. Foosaner
Fleet Call, Inc.
601 13th Street, N.W.
Suite 1110 South
Washington, DC 20005

Russell Fox
Gardner, Carton & Douglas
1301 K Street, NW
Suite 900, East Tower
Washington, DC 20005

Albert H. Frazier, Jr.
Vice President
Celsat, Inc.
879 W. 19th Street, Suite 400
Cardena, CA 90278

Dan Freeman
Freeman Engineering Assoc.
c/o Blooston, Mordkosky, Jackson &
Dickens
2120 L Street, N.W., Suite 300
Washington, DC 20037

Shirley S. Fujimoto
Counsel for Domestic Automation Co.
Keller and Heckman
1001 G Street, N.W.
Suite 500 West
Washington, DC 20001

Dick Funk
Vice President
Pinon Communications, Inc.
P.O. Box 3278
San Angelo, TX 76902

H. Mark Gibson
Comsearch
11720 Sunrise Valley Drive
Reston, VA 22091

Gardner Gillespie
Hogan & Hartson
555 13th Street, NW
Washington, DC 20004

Michael Glaser
Hopper and Kanouff, P.C.
1610 Wynkoop Street
Suite 200
Denver, CO 80202

Henry Goldberg
Counsel for Apple Computer, Inc.
Goldberg, Godles, Wiener & Wright
1229 Nineteenth Street, N.W.
Washington, DC 20036

William J. Gordon
V.P. Regulatory Affairs
In-Flight Phone Corp.
1146 19th Street, N.W.
Suite 200
Washington, DC 20036

James Gunn
Director of Distributed Data Systems
Andrew Corporation
1850 North Greenville, Suite 100
Richardson, TX 75081

Albert Halprin
Counsel for Northern Telecom, Inc.
Halprin, Mendelsohn & Goodman
1301 K Street, N.W.
Washington, DC 20005

Mark R. Hamilton
McCaw Cellular Communications, Inc.
5400 Carillon Point
Kirkland, WA 98033

Kenneth E. Hardman, P.C.
Counsel to Minilec Service Inc.
Attorney-at-Law
1255-23rd Street, N.W.
Suite 800
Washington, DC 20037-1170

Werner K. Hartenberger
Counsel to Cox Enterprises, Inc.
Dow, Lohnes & Albertson
1255 23rd Street, N.W.
Suite 500
Washington, DC 20037

John Hearne
Chairman
Point Communications Company
100 Wilshire Boulevard
Suite 1000
Santa Monica, CA 90401

Linda Hershman
Vice President
Southern New England Telecommun. Corp
227 Church Street
New Haven, CT 06510

David L. Hill
Counsel to Florida Cellular RSA
Limited Partnership
O'Connor & Hannan
1919 Penn. Ave., N.W., Suite 800
Washington, DC 20006

Marvin Hirschberg
Director
Advanced Cordless Technologies, Inc.
150 River Road, Building O
Montville, NJ 07045

John W. Hunter
Counsel to Home Telephone Company
McNair Law Firm, P.A.
1155 15th Street, N.W.
Washington, DC 20005

Robert M. Jackson
Counsel to Harrisonville Telephone Co
Blooston, Mordkofsky, Jackson and
Dickens
2120 L Street, N.W.
Washington, DC 20037

Lourens Van Der Jagt
Chief Engineer
Knowledge Implementations, Inc.
32 Conklin Road
Warwick, NY 10990

David C. Jatlow
Counsel for The Ericsson Corporation
Young & Jatlow
2300 N Street, N.W.
Suite 600
Washington, DC 20037

Rodney L. Joyce
Counsel for In-Flight Phone Corp.
Ginsburg, Feldman and Bress
1250 Connecticut Ave., N.W.
Washington, DC 20036

Stephen Kaffee
Law Offices of Stephen Kaffee, P.C.
1920 N Street, NW
Suite 660
Washington, DC 20036

Robert J. Keller
Counsel for Associated PCN Company
Fleischman and Walsh
1400 Sixteenth Street, N.W.
Washington, DC 20036

Thomas J. Keller
Counsel for Assn. of Amer. Railroads
Verner, Liipfert, Bernhard
McPherson and Hand, Chartered
901 15th Street, N.W. Suite 700
Washington, DC 20005

Kevin Kelley
Vice President, External Affairs
QUALCOMM Incorporated
2000 L Street, NW
Suite 702
Washington, DC 20036

Leonard J. Kennedy
Counsel to Comcast PCB Commun., Inc.
Dow, Lohnes & Albertson
1255 23rd Street, N.W.
Suite 500
Washington, DC 20037

Michael D. Kennedy
Director, Regulatory Relations
Motorola, Inc.
1350 I Street, N.W., Suite 400
Washington, DC 20005

Linda Kent
Associate General Counsel
United States Telephone Association
900 19th Street, NW
Suite 800
Washington, DC 20006-2105

Thomas Kerester
Chief Counsel
United States Small Business Admin.
409 3rd Street, SW
Washington, DC 20416

Leon Kestenbaum
Counsel for Sprint
1850 M Street, NW
Suite 1110
Washington, DC 20036

Christopher A. Kidd
Vice President & Chief Operating
Officer
Metrocall of Delaware, Inc.
6677 Richmond Highway
Alexandria, VA 22306

Benn Kobb
President
Wireless Information Networks Forum
1155 Connecticut Avenue, NW
Suite 500
Washington, DC 20036

Stephen Kraskin
Counsel for Rural Independent
Coalition
2120 L Street, NW
Suite 810
Washington, DC 20037

David B. Leeson
Chairman
California Microwave, Inc.
985 Almanor Avenue
Sunnyvale, CA 91352

David Lemon
Director Engineering
CNet, Inc.
4975 Preston Park Blvd., 8th Floor
Plano, TX 75093

Lon C. Levin
Vice President
AMSC Subsidiary Corporation
1150 Connecticut Avenue, N.W.
4th Floor
Washington, DC 20036

Ellen Levine
Counsel to the Public Utilities
Commission of the Stat of Ca.
505 Van Ness Avenue
San Francisco, CA 94102

Andrew D. Lipman
Counsel to Clear Creek Mutual
Telephone Company
Swidler & Berlin, Chtd.
3000 K Street, N.W.
Washington, DC 20007

John D. Lockton
Managing Partner
Corporate Technology Partners
520 S. El Camino Real
Suite 715
San Mateo, CA 94402

Donald C. Loughry
Chairman, IEEE 802
Hewlett-Packard Company
19420 Homestead Road, M/S 43UC
Cupertino, CA 95014

Michael Lubin
Executive Vice President
Pacific Communication Sciences, Inc.
10075 Barnes Canyon Road
San Diego, CA 92121

Glenn B. Manishin
Counsel for PageMart, Inc.
Blumenfeld & Cohen
1615 M Street, N.W. Suite 700
Washington, DC 20036

Thomas Martinson
Vice President
PCN America, Inc.
153 East 53rd Street
Suite 2500
New York, NY 10022

Robert A. Mazer
Counsel to Lincoln Telephone &
Telegraph Corporation
Nixon, Hargrave, Devans & Doyle
One Thomas Circle, N.W., Suite 800
Washington, DC 20005

Dinah D. McElfresh
Executive Director
Electromagnetic Energy Policy
Alliance
1255 23rd Street, N.W. Suite 850
Washington, DC 20037-1174

Terrence McGarty
President and Principal
Telmarc Telecommunications Inc.
265 Franklin Street
Boston, MA 02110

Gerald S. McGowan
Counsel to Dial Page, Inc.
Lukas, McGowan, Nace & Gutierrez
1819 H Street, N.W. Suite 700
Washington, DC 20006

John McNulty
President and CEO
Rose Communications, Inc.
2390 Walsh Avenue
Santa Clara, CA 95051

Michael W. Medin
Director, Systems Engineering
Hitachi Telecom (USA), Inc.
2990 Gateway Drive
Norcross, GA 30071

Lawrence M. Miller
Counsel to Global Enhanced Messaging
Venture
Schwartz, Woods & Miller
1350 Conn., Ave., N.W.
Washington, DC 20036

Robert J. Miller
Counsel to Alcatel Network Systems
Gardere & Wynne, L.L.P.
1601 Elm Street, Suite 3000
Dallas, TX 75201

Harold Mordkofsky
Counsel to Century Celluent, Inc.
Blooston, Mordkofsky, Jackson &
Dickens
2120 L Street, Suite 300
Washington, DC 20037

Lawrence J. Movshin
Counsel to Metriplex, Inc.
Thelen, Marrin, Johnson Bridges
805 15th Street, N.W.
Suite 900
Washington, DC 20005

Riley M. Murphy
Counsel to Dr. Charles I. Berlin
1100 Poydras Street, Suite 2950
New Orleans, LA 70163

Carl W. Northrop
Counsel to PacTel Paging
Bryan Cave
700 13th Street, N.W.
Washington, DC 20005

Thomas Ohlsson
Product Manager
SpectraLink Corporation
1650 38th Street
Boulder, CO 80301

Stuart E. Overby
Manger of Regulatory Programs
Motorola, Inc.
1350 I Street, N.W., Suite 400
Washington, DC 20005

George Petrutsas
Counsel for Ohio LINX, Inc.
Fletcher, Heald and Hildreth
1225 Connecticut Ave., NW
Suite 400
Washington, DC 20036

John Pettit
Counsel for Tandy Corporation
Hopkins & Sutter
888 16th Street, NW
Suite 700
Washington, DC 20006

James Quarforth
President
Clifton Forge-Waynesboro Telephone Co
401 Spring Lane, P.O. Box 1990
Suite 300
Waynesboro, VA 22980

Leonard Robert Raish
Counsel for Spectralink Corporation
Fletcher, Heald & Hildreth
Suite 400, 1225 Connecticut Ave., N.W
Washington, DC 20036-2679

David A. Reams
General Counsel and President
Grand Broadcasting Corporation
27019 Shawnee
Perrysburg, OH 43551

David P. Reed
Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W.
Washington, DC 20554

Robert N. Reiland
Counsel for Ameritech
30 South Wacker Drive, Suite 3900
Chicago, Il 60606

Paul Rodgers
General Counsel
National Association of Regulatory
of Utility Commissioners
1102 ICC Buildin, P.O. Box 684
Washington, DC 20044

Mark P. Royer
Counsel to Southwestern Bell Corp.
One Bell Center, Rm 3524
St. Louis, MO 63101-3099